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SAN ANGELO UNIFORM TIRE QUALITY GRADING TEST CENTER

COMPLETED

INDUSTRY USERS MANUAL

ORIGINAL

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U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
MOTOR VEHICLE PROGRAMS
OFFICE OF STANDARDS ENFORCEMENT

JULY 1977

31

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Section One

Introduction

1.0 SCOPE

This manual provides a description of the Department of Transportation's San Angelo UTQG Test Center and delineates the procedures that are applicable to treadwear and traction testing that may be performed at this location.

1.1 RESPONSIBILITY

The Office of Standards Enforcement (OSE), Motor Vehicle Programs (MVP), National Highway Traffic Safety Administration (NHTSA), has been assigned the prime responsibility for the operation of the NHTSA San Angelo Test Center, hereafter referred to as Test Center. The Test Center Office is located in Building 431, Goodfellow Air Force Base (GAFB).

The address and phone number are:

UTQG Test Center
NHTSA
P.O. Box 1671
San Angelo, Texas 76902
Area Code 915-655-0546

1.2 TEST CENTER ORGANIZATION

The NHTSA has assigned a Test Center Manager and supporting staff (Figure 1-1) at the Test Center Office. All matters pertaining to the utilization of the treadwear and traction test courses, other than questions of legal interpretation of the UTQG regulation, should be referred to this organization.

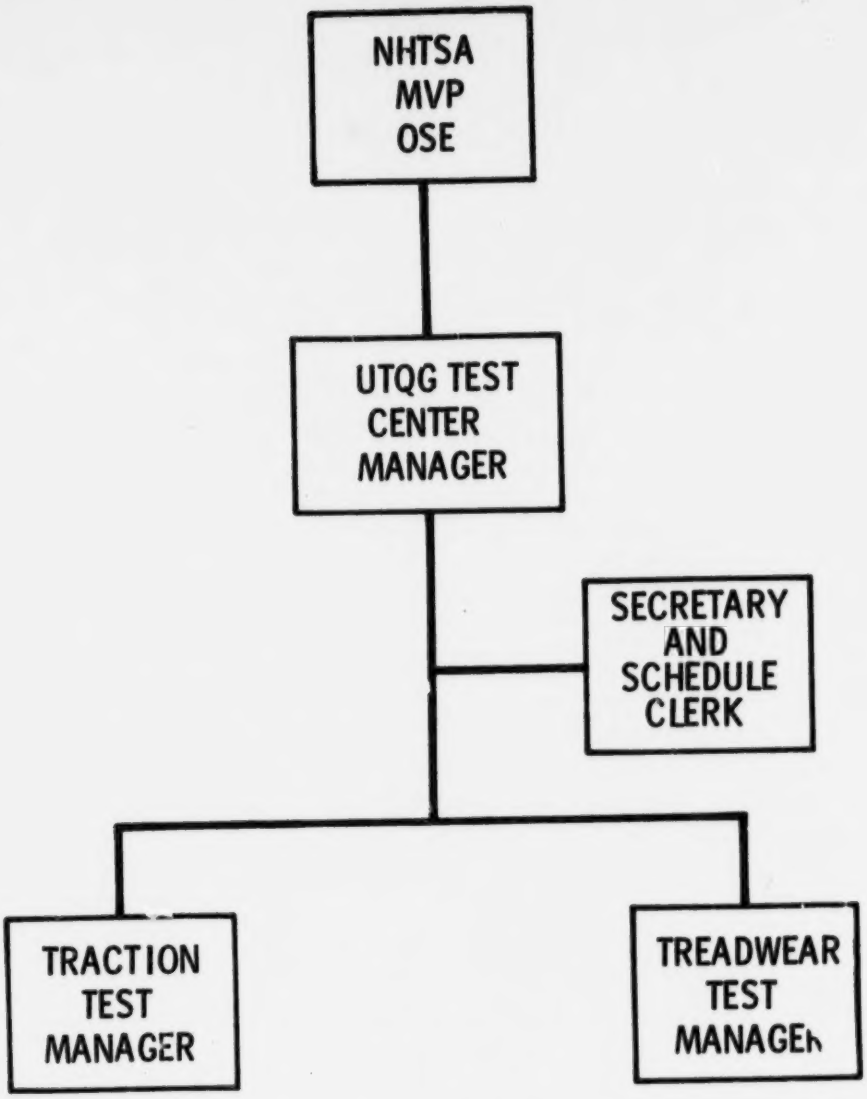

Figure 1–1. Test Center Organization

Section Two

General Description

2.0 SCOPE

This section contains a general description of the Test Center at San Angelo, Texas, which may be utilized by industry for Uniform Tire Quality Grading testing activities.

2.1 AREA DESCRIPTION

The Test Center is located in San Angelo, Texas, which is situated northwest of San Antonio and southwest of Abilene as shown in Figure 2-1. A map of the city of San Angelo is provided in Figure 2-2.

2.2 TEST CENTER

The Test Center (Reference Figure 2-4) on Goodfellow AFB includes the Test Center Headquarters in Building 431, the Test Vehicle Parking Area, and the Traction Test Course.

- There is a conference room available for short meetings in Building 431. Contact Center office for usage.
- A bulletin board is located in the treadwear measuring booth hallway. Notices, instructions, etc., concerning traction and treadwear will be posted there. Check daily.

2.3 TREADWEAR COURSE DESCRIPTION

The treadwear course is composed of the southern, northwestern, and eastern loops covering approximately 400 miles in and around the city of San Angelo,Texas, as illustrated in Figure 2-3. A detailed description of the three segments is provided in Section 6.4 of this manual.

2.4 TRACTION COURSE DESCRIPTION

The traction course is composed of a concrete test surface (600′ X 48′) and an asphalt test surface (600′ X 60′) positioned 180° apart in a test loop of 1.4 miles. A detailed description of the traction test loop is provided in Section 7.4 of this manual.

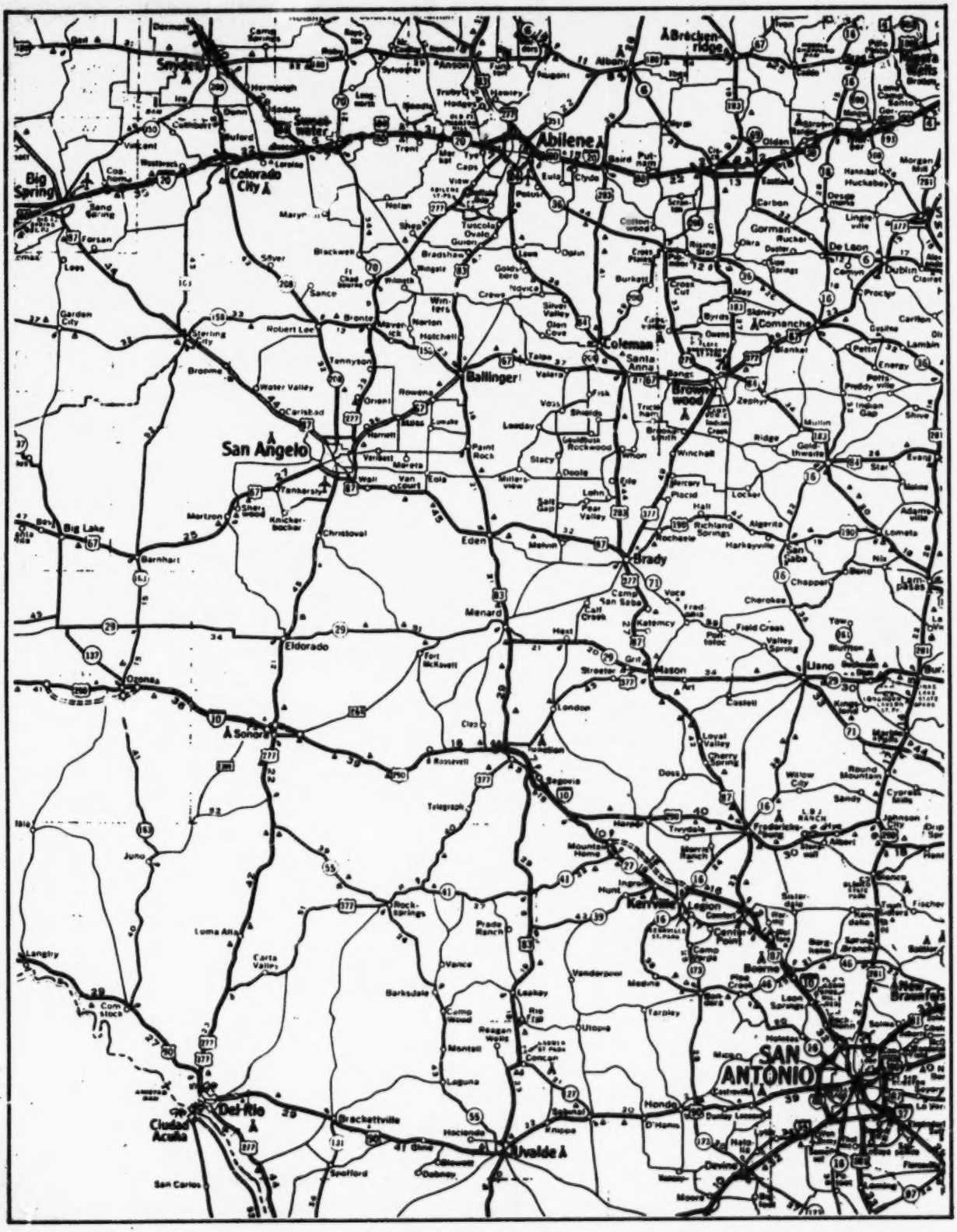

Figure 2--1. Area Map

Figure 2–2. San Angelo, Texas Map

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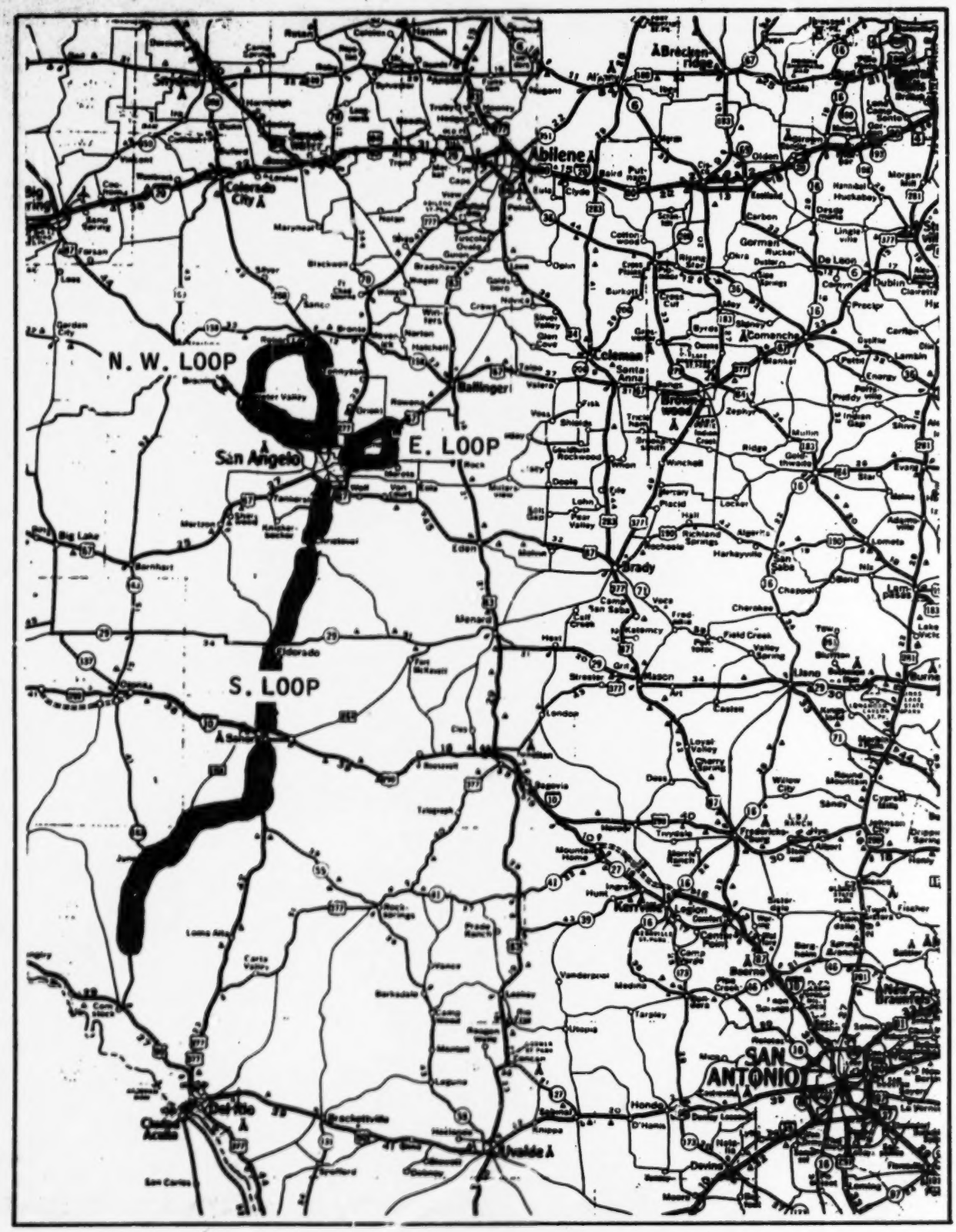

F.gure 2–3. Treadwear Course Route

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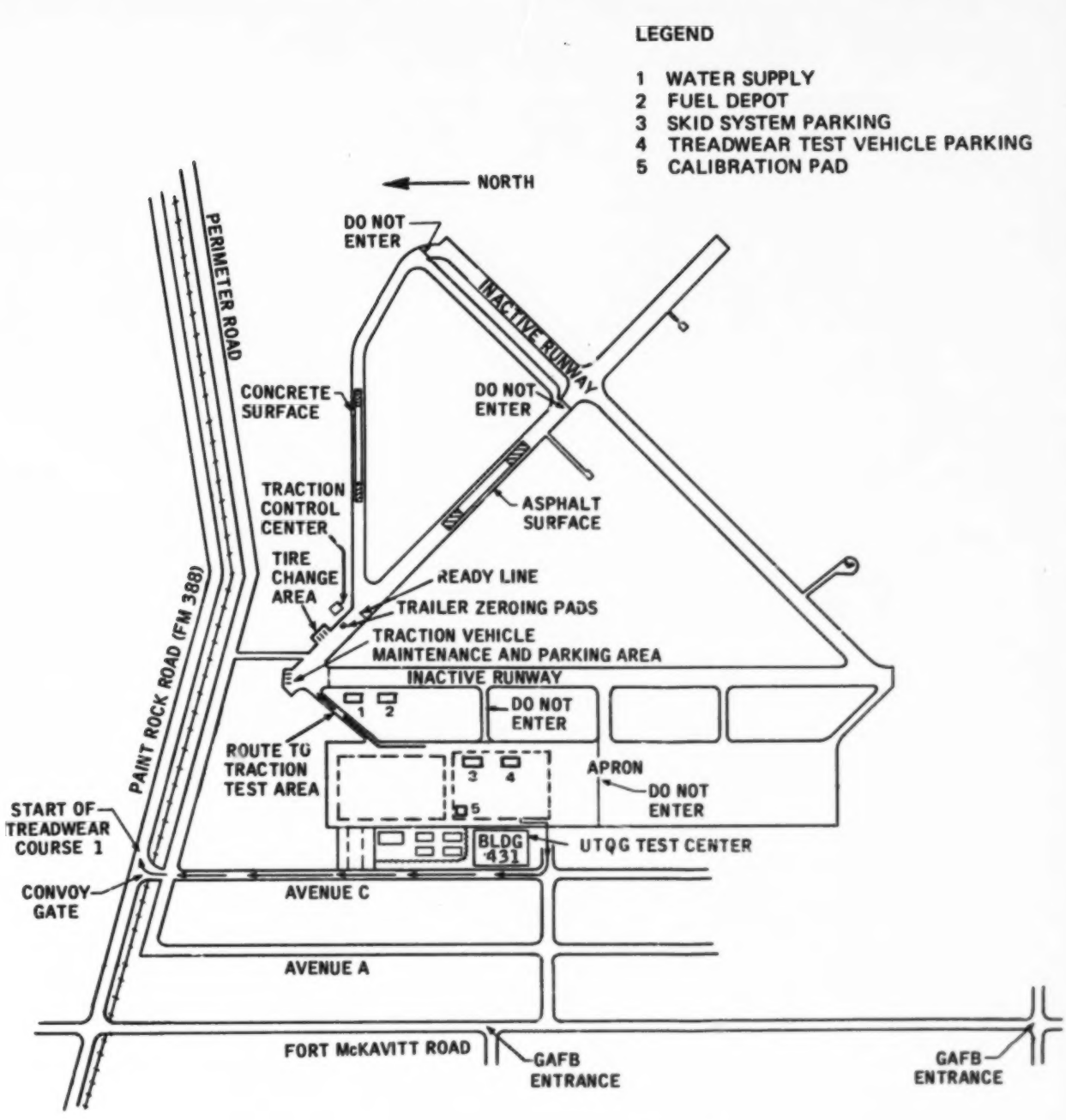

Figure 2–4. Test Center – Goodfellow AFB

2.5 EMERGENCY MEDICAL SERVICES

There are several hospitals along the treadwear course that may be utilized for emergency medical services. Following is a list of the hospitals that may be utilized when medical attention is needed.

a. Baptist Memorial Geriatric Hospital serves long stay patients with 250 beds and a staff of 325. Special facilities that are available include a pharmacy, dental service, hospital auxiliary, renal analysis, outpatient department, volunteer services department, intensive care unit, self care unit, extended care unit, skilled nursing facility, and intermediate care facilities.

b. Clinic Hospital of San Angelo is a general hospital rendering short stay patients with medical and surgical care. It has a staff of 240 and a total of 86 beds. Special facilities that are available include an emergency department, postoperative recovery room, and inhalation therapy room.

c. Shannon West Texas Memorial Hospital provides general acute short term hospital services and facilities. It is staffed with 466 personnel and has 173 beds. Services and facilities that are available include general medical and surgical care, dental, pharmacy, emergency services, postoperative recovery room, inhalation therapy, physical therapy, intensive care, coronary care, and X-ray therapies.

d. St. John's Catholic Hospital is operated with a staff of 65, including dentists, and has 112 beds. Short stay patients are provided medical and surgical care, and special facilities include a pharmacy, post operative recovery room, hospital auxiliary, inhalation therapy and intensive care unit, department of radiology, department of nuclear medicine, and three operating rooms.

e. U.S. Air Force (Goodfellow AFB) Hospital is operated for short stay patients. There is a staff of 48 and there are 25 beds. The services offered include dental, pharmacy, outpatient, postoperative, and emergency service. The GAFB Hospital is for emergency on-base injuries only. GAFB ambulance services will be provided only for emergency patients. Patients will be transferred to local San Angelo hospitals when patient is movable. The U.S. Air Force will bill the injured party's employer for service rendered. Prompt payment of costs involved is required.

2.6 EMERGENCY TELEPHONE NUMBERS

The following telephone numbers should be utilized to request assistance for any emergency that is encountered by the test convoys while on the treadwear course.

Department of Public Safety - Texas Highway Patrol

San Angelo	(915) 655-7357
Water Valley	(915) 655-7357
Wall	(915) 655-7357
Robert Lee	(915) 655-7357
Sonora	(915) 387-2443
Ozona	(915) 387-2443
Juno	(915) 387-2443

Ambulance Service

San Angelo	(915) 655-5727
Water Valley	(915) 655-5727
Wall	(915) 655-5727
Robert Lee	(915) 453-2424
Sonora	(915) 387-2521
Ozona	(915) 392-3202

Test Center

San Angelo	(915) 655-0546

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Section Three

General Instructions

3.0 SCOPE

This section includes the general instructions that are applicable to all testing organizations and must be adhered to by all personnel utilizing the Test Center.

3.1 SENIOR REPRESENTATIVE RESPONSIBILITIES

All testing organizations utilizing the Test Center will identify, by letter to the Center manager, the senior company representative in charge. This senior company representative will be responsible for all company personnel and activities at the Test Center, Goodfellow AFB, and upon the treadwear course located in and around the San Angelo, Texas, vicinity. This will include but not be limited to:

a. Reporting to the Test Center Office at least two full working days prior to the start of testing. At this time, a briefing will be conducted by the Test Center Manager and all administrative functions will be completed.

b. Adhering to all schedules and Center procedures for the duration of the test period(s).

c. Adhering to the procedures for the utilization of keys to the convoy gate, NHTSA Building 431, and measuring booth(s).

d. Practicing good housekeeping in all work areas and adhering to all applicable GAFB regulations.

e. Providing duplicate keys for each test vehicle to the Center Manager.

f. Completion of "Waiver and Hold Harmless Agreement" form and "Vehicle Registration" form by each individual.

g. Advising the Test Center Manager of a local address and phone number at which the senior and one other authorized representative can be reached on a 24-hour a day, seven day a week basis.

h. Checking out with the Test Center Manager at the completion of testing activities.

i. Repairing and/or replacing Government property damaged or destroyed through misuse, accident, or negligence of company employees.

j. Adhering to good safety practices in the congested areas on the traction course, treadwear course, and the parking, maintenance, and calibration areas adjacent to the NHTSA Building 431.

3.2 VEHICLE PARKING

All vehicles will be parked in the designated Non-Test Vehicle Parking Area except as follows:

a. Treadwear Test Convoy Vehicles - These may be parked in the assigned section in the Test Vehicle Parking Area in Figure 2-4 during the designated scheduled times.

b. Traction Test Vehicles - These may be parked in the Traction Vehicle Maintenance Area as defined in Figure 2-4. The period of time for parking traction vehicles in this area is based upon the discretion of the testing organization.

c. All vehicles shall be locked when not in use. The NHTSA will not be responsible for property damaged, lost, or stolen.

3.3 VEHICLE FUELING

Fueling of all vehicles shall be accomplished off-base due to the hazardous conditions that would be encountered if temporary storage were allowed in the Test Center area.

3.4 TEST VEHICLE IDENTIFICATION

All treadwear and traction test vehicles shall be conspicuously identified with the words TEST VEHICLE and the name of the company displayed in letters at least three inches high on one door on each side of the vehicle. Each skid system tow vehicle will be assigned a number which must be visible from the front, rear, and both sides of the vehicle.

3.5 RESTRICTED AREAS

All personnel shall refrain from utilizing the roadways and runways delineated in Figure 2-4 with the notation "DO NOT ENTER" and those areas defined by the Center manager on a daily basis. Restricted areas will be posted on bulletin boards.

3.6 BUSINESS/PERSONAL COMMUNICATIONS

It is requested that off-base facilities be utilized for the majority of business and personal mail and telephone communications. The limited services that are available at the Test Center include the following:

a. Emergency mail can be addressed to the attention of the Company Representative, c/o UTQG Test Center, Post Office Box 1671, San Angelo, Texas 76902. The size of all emergency mail addressed to the UTQG Test Center must be no larger than a manila envelope.

b. Only emergency incoming phone calls for company representatives will be accepted at the Test Center Office. The office staff will be available to receive emergency calls during normal business hours. All other phone calls will be referred to the public telephone at (915) 655-8894 (See Para. 3.6.d).

c. A telephone (915/653-3231 ext. 541) restricted to incoming calls to Goodfellow AFB extensions is located in the work area. Incoming calls on ext. 541 should be brief since this phone is also the emergency line. The following telephone numbers are for requesting Goodfellow AFB emergency services:

Fire	ext. 333
Hospital	ext. 233
Security Police	ext. 200

d. A public telephone (915/655-8894) is provided in the work area for the placement of business/personal calls. This telephone may be utilized for incoming calls; however, each person is responsible for being in the immediate area to receive the call.

3.7 ASSISTANCE FROM NHTSA PERSONNEL

While NHTSA personnel are specifically forbidden from participating in user testing activities or interpreting the UTQG regulation, company representatives may ask for and receive advice in matters related to use of NHTSA facilities at the Test Center. The intent is to provide company representatives the opportunity to use the Test Center to the fullest extent. Industry personnel having questions concerning the UTQG regulation itself or legal interpretation thereof should submit their questions to the following offices respectively:

National Highway Traffic Safety Administration
Office of Crash Avoidance, Tire Division, NMV-33
400 Seventh Street, S.W.
Washington, D.C. 20590
Phone 202/426-2800

National Highway Traffic Safety Administration
Office of Chief Counsel, NOA-30
400 Seventh Street, S.W.
Washington, D.C. 20590
Phone: 202/426-9611

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Section Four

Goodfellow AFB Administrative Instructions

4.0 SCOPE

This section contains instructions concerning the various forms that must be completed prior to gaining access to the Test Center on Goodfellow AFB.

4.1 WAIVER AND HOLD HARMLESS AGREEMENT

Each individual entering Goodfellow AFB to engage in any tire test related activity is required to have a completed Waiver and Hold Harmless Agreement on file in the Test Center Office. Figure 4-1 provides a sample of this form. Forms may be obtained from the Center manager.

4.2 VEHICLE REGISTRATION AND OPERATION

Individuals who intend to drive their rented or privately-owned vehicles on Goodfellow AFB must comply with the requirements stated in the letter from the Chief of the Security Police (Figure 4-2). It should be noted that Goodfellow AFB Security Police have full power to detain and arrest civilians committing traffic violations or unlawful acts while on the base.

Samples of the Goodfellow AFB Form 7 and USAF Form 533 are shown in Figures 4-3 and 4-4. These forms, obtained from the Center manager, shall be completed for each individual and submitted to the Test Center manager.

4.3 VISITORS INSTRUCTIONS

Visitors must enter either of the two GAFB entrances. A gate pass is issued by the guard and must be signed by the Test Center representative visited. This pass must be relinquished when leaving either entrance of the base. These are daily passes.

NOTE: Persons bringing foreign nationals to the Test Center must submit a letter to the Test Center manager stating the full name and country-of-origin of each individual to visit the Center. This information must be received by the Center manager at least two weeks prior to the scheduled visit.

WAIVER AND HOLD HARMLESS AGREEMENT

In consideration of the granting of license to enter in and upon the premises of Goodfellow Air Force Base, San Angelo, Texas, to participate in the testing of passenger car tires in accordance with the Uniform Tire Quality Grading regulation issued by the National Highway Traffic Safety Administration, _____ does hereby agree to
(Company/Individual)

release and forever hold harmless the United States of America, its subordinate agencies, its employees, and its agents from any liability whatsoever arising from damages, injury, or loss to persons or property resulting from or in any manner growing out of entry in or upon said premises.

SAMPLE

_____
Company/Individual

BY: _____
Authorized Agent

_____
Title

DATE: _____

Figure 4–1. Waiver and Hold Harmless Agreement

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 6940TH AIR BASE GROUP (USAFSS)
GOODFELLOW AIR FORCE BASE, TEXAS 76901

REPLY TO ATTN OF: SP

25 July 1974

SUBJECT: Operation and Registration of DOT Affiliated Vehicles on GAFB

TO: Department of Transportation

1. In order to inform personnel engaged in the tire test program being conducted on Goodfellow AFB under the supervision of the Department of Transportation of the vehicle operation and registration requirements, request each individual be provided a copy of this letter.

2. The following procedures will apply to individuals engaged in this program who operate their privately owned vehicles on base.

a. The Department of Transportation representative will issue sufficient copies of AF Form 533 and authenticated GAFB Form 7's to accommodate each individual operating a privately owned vehicle on base to the company supervisor in charge of the employees of that particular company.

b. Each individual who desires to operate his privately owned vehicle on the base will be issued a GAFB Form 7. The GAFB Form 7 will be authenticated by the senior Department of Transportation supervisor or his specifically designated representative, in the block, "Issued By". If the senior DOT representative elects to delegate this responsibility to a subordinate, he will advise Security Police Administration, building 303, who his representative will be. This will be done in writing. Once the GAFB Form 7 has been filled out and authenticated, it will be displayed in the lower left hand corner of the windshield of the individual's vehicle when entering the base and while on base.

c. The expiration date of the GAFB Form 7 will be for a period not to exceed 30 days from date of issue.

d. Each individual registering or operating a privately owned vehicle on the base will fill out an AF Form 533 at the time he receives a GAFB Form 7. The completed AF Form 533 will then be returned to Security Police Administration, building 303 for file.

Figure 4–2. Chief, Security Police Letter (Sheet 1 of 2)

3. Company-owned Vehicles. All company owned and operated vehicles will be marked in such a manner as to make them readily identifiable as "test" vehicles and what company they belong to.

4. Operation of Vehicles.

a. All privately-owned or company-owned vehicles will be operated in accordance with AFR 125-14 and GAFB Supplement thereto when on GAFB. Basic requirements outlined in these directives are set forth below for your convenience.

b. Maximum speed on base is 30 MPH on Fort McKavitt Road and portions of Ave A and C on the north end of the base. Other streets and roadways on base are 20 MPH unless otherwise posted.

c. Speed limits are radar-monitored on the base at irregular intervals.

d. Parking is prohibited except in those places designated for parking.

e. Vehicles are subject to randcm searches when departing or entering the base for contraband government property, etc.

f. Weapons (i.e., firearms, etc.) cannot be transported on base.

g. All accidents involving motor vehicles are to be reported to the Security Police, extension 200/290, building 301.

5. If any question should arise or assistance be required from theSecurity Police, personnel are requested to contact the Desk Sergeant on duty at extension 200/290 in building 301. If satisfaction is not gained, then contact the Chief, Security Police, or Security Police Superintendent, extension 422/284 or 209.

John S Costello

JOHN S. COSTELLO, Captain, USAF
Chief, Security Police

2

Figure 4—2. Chief, Security Police Letter (Sheet 2 of 2)

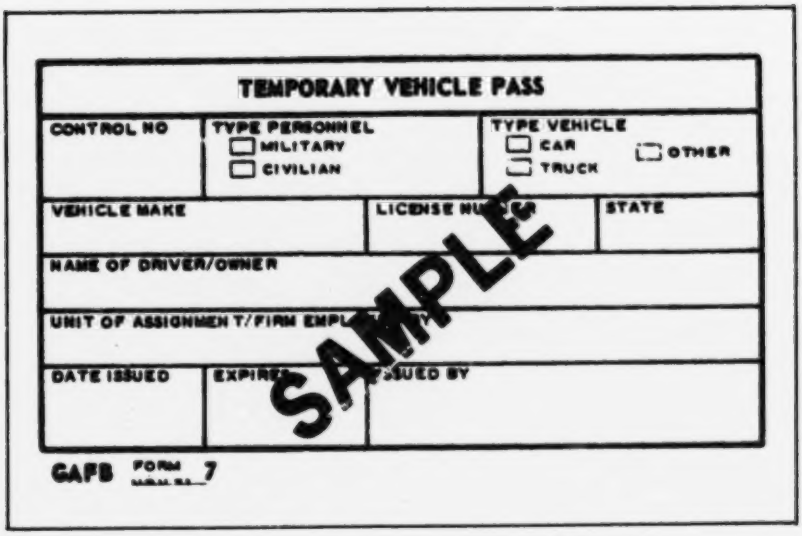
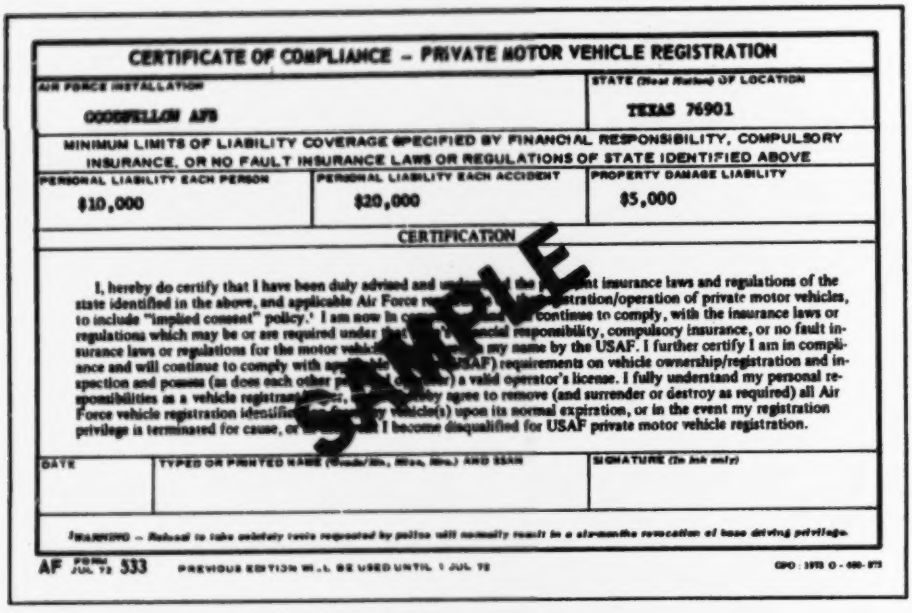


Figure 4–3. Goodfellow AFB Form 7

AF Form 533 (Side 1)



CERTIFICATE OF COMPLIANCE – PRIVATE MOTOR VEHICLE REGISTRATION

AIR FORCE INSTALLATION: GOODFELLOW AFB

STATE (Next Nation) OF LOCATION: TEXAS 76901

MINIMUM LIMITS OF LIABILITY COVERAGE SPECIFIED BY FINANCIAL RESPONSIBILITY, COMPULSORY INSURANCE, OR NO FAULT INSURANCE LAWS OR REGULATIONS OF STATE IDENTIFIED ABOVE

PERSONAL LIABILITY EACH PERSON	PERSONAL LIABILITY EACH ACCIDENT	PROPERTY DAMAGE LIABILITY
$10,000	$20,000	$5,000

CERTIFICATION

I, hereby do certify that I have been duly advised and understand the pertinent insurance laws and regulations of the state identified in the above, and applicable Air Force regulations governing the registration/operation of private motor vehicles, to include "implied consent" policy.[1] I am now in compliance and will continue to comply, with the insurance laws or regulations which may be or are required under the financial responsibility, compulsory insurance, or no fault insurance laws or regulations for the motor vehicle registered with my name by the USAF. I further certify I am in compliance and will continue to comply with applicable (USAF) requirements on vehicle ownership/registration and inspection and possess (as does each other person who operates) a valid operator's license. I fully understand my personal responsibilities as a vehicle registrant/operator, and hereby agree to remove (and surrender or destroy as required) all Air Force vehicle registration identification from my vehicle(s) upon its normal expiration, or in the event my registration privilege is terminated for cause, or should I become disqualified for USAF private motor vehicle registration.

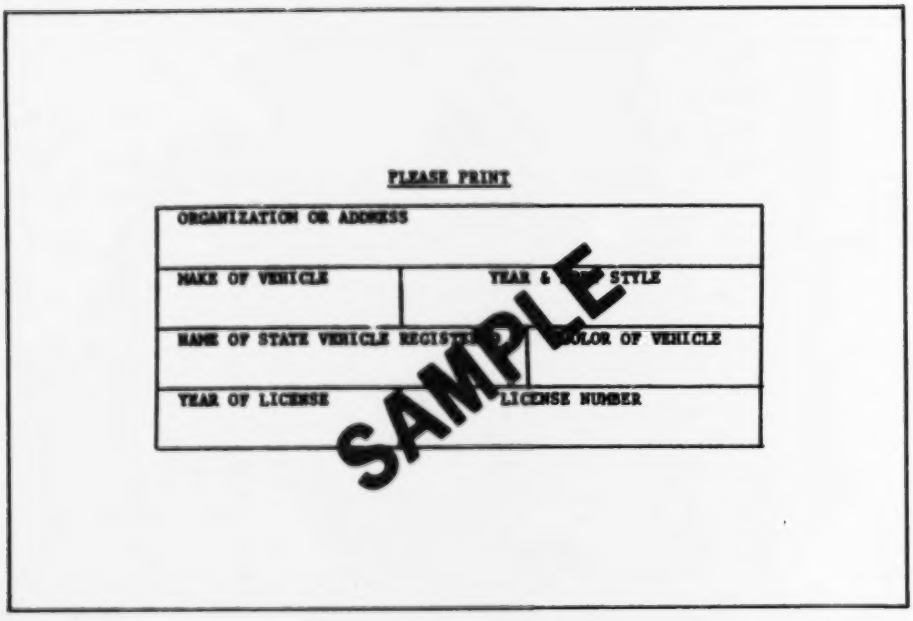
SAMPLE

DATE	TYPED OR PRINTED NAME (Grade/Rk., Mi.a, Mrs.) AND SSAN	SIGNATURE (In ink only)

[1]WARNING – Refusal to take sobriety tests requested by police will normally result in a six-months revocation of base driving privilege.

AF FORM JUL 72 533 PREVIOUS EDITION WILL BE USED UNTIL 1 JUL 72 GPO : 1972 O - 480-873

AF Form 533 (Side 2)



PLEASE PRINT

ORGANIZATION OR ADDRESS	
MAKE OF VEHICLE	YEAR & BODY STYLE
NAME OF STATE VEHICLE REGISTERED	COLOR OF VEHICLE
YEAR OF LICENSE	LICENSE NUMBER

SAMPLE

Figure 4–4. USAF Form 533

Section Five

Tire Procurement Instructions

5.0 SCOPE

The following instructions pertain to the procurement of course monitoring tires from NHTSA.

5.1 REQUESTS FOR TIRES

Prior to any requests for course monitoring tires (CMTs), the interested parties should obtain by either letter or telephone communication with the Test Center office such pertinent information as the current price of CMTs, the current Texas State sales tax rate, and the quantities of each type of tire available for sale. However, no telephone orders will be taken.

A written request for course monitoring tires must be received by the UTQG Test Center office at San Angelo, Texas, at least five (5) work days prior to requested delivery date.

The request shall state:

a. Delivery date desired

b. Construction type of course monitoring tire required, i.e., bias, bias belted, or radial

c. Quantity of each construction type.

Address all correspondence related to procurement of CMTs to:

Manager, UTQG Test Center
National Highway Traffic Safety Administration
P. O. Box 1671
San Angelo, Texas 76902

The Test Center telephone number is 915/655-0546

5.2 PAYMENT FOR TIRES

Current prices of course monitoring tires may be obtained by either letter or telephone communication with the Test Center office. The Texas sales tax will apply to tires purchased from NHTSA by industry for use in treadwear testing.

Two checks are required for each tire purchase. If not included in the written request, detailed in section 5-1 above, checks must be received by the Test Center office at least five (5) work days prior to requested delivery date.

a. One check shall be made payable to "National Highway Traffic Safety Administration" for the cost of the tire and Federal Excise Tax (FET).

b. The second check shall be made payable to "State of Texas Sales Tax Division" for the amount equal to the current Texas State sales tax. The applicable tax rate can be obtained by contacting the UTQG Test Center office.

EXAMPLE: Assume sales tax rate is 5% of basic cost.

Basic Cost of CMT	$32.86
FET	2.65
NHTSA COST	$35.51

5% of $32.86 = $1.64

Therefore, for each CMT required in the example above, one check would be made payable to the NHTSA in the amount of $35.51 and the other check made payable to "State of Texas Sales Tax Division" in the amount of $1.64.

The total cost of the number of tires requested must agree with the combined totals of the two checks or the request cannot be processed.

5.3 PROCUREMENT DOCUMENTATION

The Control Document (Figure 5-1) for CMTs will be completed by the Test Center office staff after receipt of checks for the proper amounts.

Each Control Document will be assigned a sequential Control Number and the UTQG Inventory Numbers of tires issued against that Control Number.

The Control Document will also reflect the company check numbers and amounts of both tire costs and sales tax checks.

The warehouse invoice number will be completed by arrangement between the Test Center office and the Government warehouse.

The required signatures will be made at the Test Center office prior to the Control Document being issued to the company representative.

5.4 WITHDRAWAL OF TIRES

After completion of the Control Document at the Test Center office, the company representative will receive two copies, one copy for company files and one copy which the Government warehouse must receive before any tires can be issued.

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
WASHINGTON, D.C. 20590

OFFICE OF STANDARDS ENFORCEMENT

PAGE _____ of _____

CONTROL NO._____ DATE:_____

Control Document For Purchase of UTQG Course Monitoring Tires

Purchaser (Company):_____

Address: _____

_____

Company Representative:_____
(Print or Type)

Tire Identification:

Item No.	Inventory No.	Quan.	Size	Manufacturer Brand	Construction	Unit Cost	Cost
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
						Total Cost	

SAMPLE

Warehouse Invoice No._____

Payment Method

Check #_____
Amount$_____
Sales Tax Rec'd
Check #_____
Amount$_____

_____ _____
Company Representative, Signature Date

_____
NHTSA Representative, Signature Date

Figure 5–1. Control Document for Purchase of UTQG Course Monitoring Tires

Upon accepting the tires, the company representative will sign a warehouse invoice. The invoice number will be the same as that prearranged between the Test Center office and the warehouse.

5.5 ASTM E501 TIRES

Industry will be responsible for furnishing and breaking-in their own ASTM tires.

Section Six

Treadwear Testing Instructions

6.0 SCOPE

This section includes the instructions applicable to the utilization of the 400 mile course defined for treadwear testing and the associated parking and measuring facilities that are provided by NHTSA.

6.1 GENERAL

a. Building 431 houses the treadwear measuring booths. Each measuring booth is equipped with compressed air and electrical outlets. In order to provide access to the booths on a 24-hour basis, a key to the hangar door and assigned measuring booth will be issued to the senior company representative by the Test Center manager.

b. The NHTSA has constructed a Test Vehicle Parking Area with a special asphalt surface that is designed to prevent bleeding. Each 15-car parking area is equipped with one quick-connect compressed air outlet, one electrical outlet, and floodlights to provide maintenance and servicing capabilities on a 24-hour basis. Industry must provide air hoses and extension cords. Care must be taken by all persons using the parking area to prevent jacks, other equipment, and materials from gouging and/or otherwise damaging the asphalt surface.

c. A non-test vehicle parking area has been provided for all cars not actually engaged in test activities. These vehicles will enter and exit through the main gates of the base. The Test Center manager will designate a specific non-test vehicle parking area and will notify interested parties of it upon their arrival.

6.2 SCHEDULING

The NHTSA schedules for treadwear testing are based upon an anticipated use by 36 four-car convoys, each departing the Center at 20 minute intervals for 24 hours each day. This density is subject to change as conditions dictate. If actual use is greater than anticipated, these intervals will be reduced accordingly.

Scheduling will be on a first-come, first-served basis. Any organization desiring to utilize the Test Center facilities may do so by requesting a block of time. Requests for scheduling shall be by letter and must be received by the Test Center manager at least 14 days prior to the calendar time desired. Schedule arrangements shall be confirmed by the Test Center initially

by telephone and then in writing to the requesting organization. A master schedule will be posted in Building 431 on Goodfellow AFB.

a. All requests should be addressed to the Test Center manager at San Angelo, Texas, and should include at least the following:
   - Name of Organization
   - Company representative (name and phone number)
   - Number of convoys, and size of each convoy, support vehicles, private cars
   - Amount of time (calendar days and test days) needed to conduct tests (testing period)
   - Two-shift or one-shift operation per day
   - Calendar time (use dates) in which requesting organization would like their testing period to be scheduled (give first choice and second choice).
   - Names (if any) of foreign nationals and country of origin
   - Name of responsible person to be on location at San Angelo and his/her local address and telephone number.

b. Each requesting organization operating on a *two shift basis* will be provided a schedule for each convoy, up to four vehicles in size, as follows:

   1. Two dispatch times per day at 12 hour intervals.
   2. One complete parking section (15 spaces) for six hours per day in three hour increments commencing nine hours after each assigned dispatch time.
   3. One measuring booth for six hours per day in three hour increments corresponding to the schedule defined for parking.

   An example of a company's two-shift schedule based upon the above is as follows:

   Begin: 6/16/75 End: 6/26/75

   Dispatch Times – 0100 and 1300 hours (All dispatch time will be in military time)

   Parking – 1000 to 1300 and 2200 to 0100 hours

   Measuring Booth – Same as parking

c. Each requesting organization operating on a *single-shift basis* will be provided a schedule for each convoy, up to four vehicles in size, as follows:

   1. One dispatch time per day at 24-hour intervals.
   2. One complete parking section (15 spaces) for three hours per day commencing nine hours after each assigned dispatch time.
   3. One measuring booth for three hours per day corresponding to the schedule defined for parking.

   An example of a company's single-shift schedule based upon the above is as follows:

   Begin: 6/2/75 End: 6/24/75

   Dispatch Time – 0600 hours

   Parking – 1500 to 1800 hours

   Measuring Booth – Same as parking

6.3 SCHEDULE CHANGES AND EXCEPTIONS

Exceptions may be made to any of the normal scheduling elements at the discretion of the Test Center manager on an individual case basis. Any change in departure times from the Test Center should be coordinated with the Test Center manager in the interest of safety and common courtesy to the convoys operating from the Center.

Subordinate companies may be assigned the same measurement booth and parking area as their parent company. This assignment technique will also apply to two or more testing laboratories testing tires for the same company.

6.4 TREADWEAR TESTING

The following instructions are applicable to the actual driving of the treadwear course:

a. At the scheduled time the convoy will depart the assigned parking area and proceed off-base via the route defined in Figure 2-4.

b. The lead driver or other authorized company representative will be responsible for unlocking the convoy gate to allow the vehicle to leave the base and locking the gate once the last vehicle has passed through. Treadwear test cars are the only vehicles authorized to use this entrance. If any problems arise with the use of this gate or if the gate is rendered inoperative, such as by a broken lock, the GAFB Security Police should be notified and the GAFB North Entrance gate used for further convoy passage.

c. The treadwear course consisting of three loops is shown by Figure 6-1. Key points along the route are identified by number in Figure 6-2 along with approximate mileage and pertinent information.

The course begins at the convoy gate and Paint Rock Road (FM388) at the northwest corner of Goodfellow AFB (1). This is the start of the southern loop. Drive east via FM388 to junction with Loop Road 306 (2). Turn right onto Loop Road 306 and proceed south to junction US277 (3). Turn left onto US277 and proceed south through Eldorado and Sonora (4), continuing to US277 to the junction with FM189 (5). Turn right onto FM189 and proceed to junction with Texas 163 (6). Turn left onto Texas 163; proceed south to Camp Hudson Historical Marker (7) and U-turn at marker rest area. Reverse route to junction of Loop Road 306 and FM388 (2). Food and gasoline may be obtained at Christoval, Eldorado, and Sonora. Gasoline only may be obtained in Juno.

The eastern loop begins at the junction of Loop Road 306 and FM388 (2). Make right turn onto FM388 and proceed east to the junction with FM2334 (13). Turn right on FM2334 and proceed south across FM765 (14) to junction of FM2334 and US87 (15). Food and gasoline are available at this point. Make the U-turn and return to junction of FM388 and Loop Road 306 (2) by the same route.

The northwestern loop begins at the junction of Loop Road 306 and FM388 (2). Turn right and proceed north on Loop Road 306 onto US277 to junction with FM2105 (8). Turn left onto FM2105 and proceed west, through the junction with Texas 208 (9), to the junction with US87 (10). Turn right to US87 and proceed northwest to junction with FM2034 near the town of Water Valley (11). Turn right onto FM2034

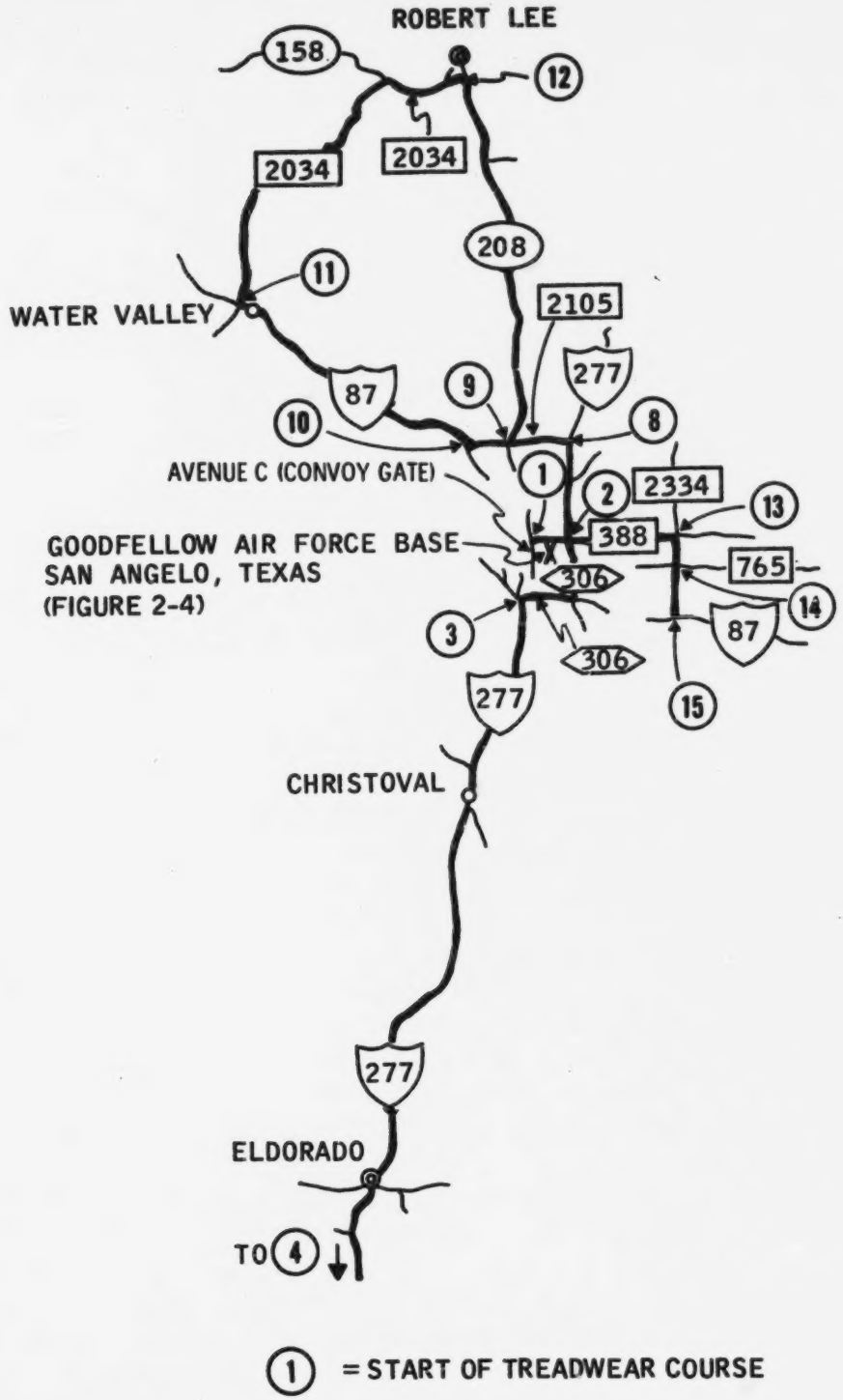


Figure 6–1. UTQG Treadwear Test Course (Sheet 1 of 2)

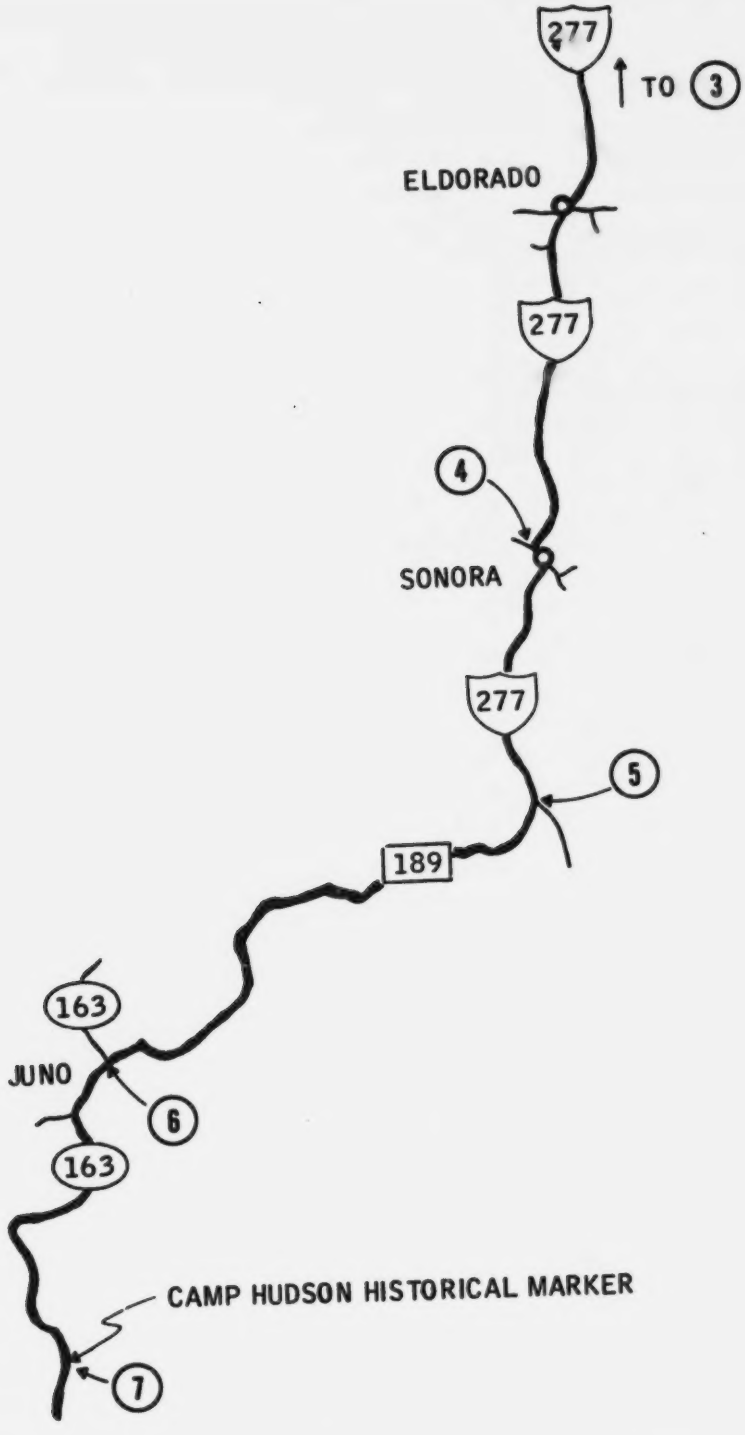


Figure 6–1. UTQG Treadwear Test Course (Sheet 2 of 2)

		Mileage	Remarks
	Southern Loop		
(1)	Convoy Gate & FM388 (Starting Point)	0	
(2)	FM388 & Loop 306	3	STOP/Calibrated Mile
(3)	Loop 306 & US277	10	
(4)	Sonora	72	Food & Fuel
(5)	US277 & FM189	88	
(6)	FM189 & Texas 163	124	
(7)	Camp Hudson Historical Marker	143	U-Turn
(4)	Sonora	214	Food & Fuel
(3)	Loop 306 & US277	276	
(2)	FM388 & Loop 306	283	
	Eastern Loop		
(13)	FM388 & FM2334	290	STOP
(14)	FM2334 & FM765	292	STOP
(15)	FM2334 & US87	295	U-Turn/Food/Fuel
(14)	FM2334 & FM765	298	STOP
(13)	FM2334 & FM388	300	
(2)	FM388 & Loop 306	307	STOP / YIELD / Blinking Red Lights
	Northwestern Loop		
(8)	US277 & FM2105	313	
(9)	FM2105 & Texas 208	317	STOP
(10)	FM2105 & US87	320	STOP
(11)	US87 & FM2034	338	Food & Fuel
(12)	FM2034 & Texas 208	362	YIELD
(9)	Texas 208 & FM2105	387	
(8)	FM2105 & US277	391	YIELD / STOP
(2)	Loop 306 & FM388	397	
(1)	Convoy Gate & FM388	400	

Figure 6–2. Treadwear Course Information

and proceed north to junction with Texas 208 (12). Turn right onto Texas 208 and proceed south to junction with FM2105 (9). Turn left onto FM2105 and proceed east to junction with US277 (8). Turn right onto US277 and proceed south to junction with FM388 and Loop Road 306 (2). Return to start point at convoy gate at Paint Rock Road (1). There is food and gasoline available at FM2105 and US87 (10); along US87; along FM2034 between (11) and (12)

d. Upon completion of the treadwear course, the convoy will enter Goodfellow AFB through the convoy gate and proceed to its assigned parking section via the route defined in Figure 2-4. If the convoy is behind schedule by enough time to preclude it clearing its assigned parking space when scheduled, the lead driver or supervisor should check with the Center manager for alternate parking spaces.

e. The lead driver or other authorized company representative will be responsible for unlocking and locking the convoy gate.

6.5 DRIVING PROCEDURES

The drivers shall adhere to the following procedures throughout the treadwear test:

a. The speed to be maintained throughout the course shall be the posted speed limit unless unsafe conditions arise. Under such circumstances, the speed should be reduced to a maximum safe operating speed.

b. There are a number of intersections at which stops are required. At each of these intersections a series of signs are placed in a fixed order as follows:

SIGN LEGEND

Highway Intersection 1000 (or 2000) Feet
STOP AHEAD
Junction XXX
Direction Sign (Mereta - - - - - -)
STOP

PROCEDURE

Approach each intersection at the speed limit (or maximum safe operating speed). When abreast of the STOP AHEAD sign, apply the brakes so that the vehicle decelerates smoothly to 20 mph when abreast of the direction sign and make a complete stop at the STOP sign or behind any vehicle already stopped.

c. When a YIELD sign is encountered, decrease speed and continue through the intersection unless traffic flow requires a full stop.

d. In convoy tests, each vehicle in the same convoy, except for the lead vehicle, is, throughout the test, within human eye range of the vehicle immediately ahead of it.

e. When overtaking a slow-moving vehicle, the convoy lead driver should attempt to safely pass the vehicle and then wait for the remainder of the convoy to pass the vehicle. Once all the convoy cars have passed the slow moving vehicle, the lead driver shall accelerate to the posted speed limit (or maximum safe operating speed).

f. During night testing, all vehicle operators are asked to dim lights to oncoming traffic and to practice the courtesy of dimming lights when overtaking slower traffic.

g. All company representatives and vehicle operators are reminded that all test vehicles and drivers operating on the UTQG treadwear test course must comply with the appropriate city, county, and state laws and regulations.

6.6 CHANGES/REVISIONS

The Test Center manager will provide the testing company with instructions concerning any changes or revisions that may be found necessary by the NHTSA concerning the procedures set forth in the Users Manual.

6.7 TIRE MEASUREMENTS

A tire-measuring booth will be made available to each company at the scheduled time for the duration specified and will contain the equipment defined in Section 6.1 of this manual.

6.8 UNSCHEDULED TEST VEHICLE PARKING

All unscheduled parking of treadwear test vehicles shall be in the Non-Test Vehicle Parking Area unless otherwise authorized by the Center manager.

6.9 TEST VEHICLE DRIVER RECRUITING

Local drivers and support personnel can be recruited for employment by contacting the Texas Employment Commission, San Angelo, Texas, at (915) 653-2321.

Section Seven

Traction Testing Instructions

7.0 SCOPE

This section includes the instructions applicable to the utilization of the traction testing facilities provided by NHTSA on Goodfellow AFB.

7.1 GENERAL

a. Asphalt and concrete surfaces have been constructed by NHTSA for traction testing. The asphalt pad is 600′ X 60′ and the concrete pad is 600′ X 48′. Both pads have an approach ramp at either end which allows for traction trailer stabilization prior to reaching the skid surfaces.

b. Also provided in close proximity to the traction test surfaces are the following:
   - Six level concrete tire change pads each 50′ X 20′. Pads will be equipped with compressed air and electrical outlets.
   - Two level concrete pads each 40′ X 12′. These pads are for zeroing wheel transducers, balancing recorders, setting recorder zero-base-lines, conducting electronic calibration checks for traction and/or wheel load transducers, and checking static trailer wheel loads.

     Use of the tire change and zeroing pads will be scheduled through the traction test manager.

c. Two level concrete pads, each 50′ X 15′, in the vicinity of Building 431, are available through the traction test manager for calibration of traction and/or wheel load transducers.

d. An area of the Test Center has been designated for use by industry for conducting traction vehicle maintenance and preparing the vehicle for testing.

7.2 SCHEDULING

Scheduling for the NHTSA traction test pads will be on a first-come, first-served basis. The scheduling procedure is based upon anticipated usage during normal daylight hours (0800 to 1700 hours), five days per week, with a maximum of six skid systems on the traction course at one time. The pads will normally be closed on weekends and Government holidays.

Traction testing with the Government and industry skid system will be suspended when ambient temperatures are below 40°F and falling. When surface winds are at 20 m.p.h. or greater or

below 20 m.p.h. but gusting to 25 m.p.h. or above, all traction testing with the Government skid system will be suspended; it is recommended that industry also suspend all testing at this point.

Requests for scheduling should be received in writing by the Test Center manager at least 14 days prior to the calendar time desired. Schedule arrangements shall be confirmed by the Test Center initially by telephone and then in writing to the requesting organization. A master schedule will be posted in Building 431 on Goodfellow AFB. Each requesting organization will be provided a schedule for:

a. Calendar time - one to ten working days depending upon the request and center schedule commitments.

b. Testing period - two periods per day of traction course time, each of four hours duration separated by a one-hour period for test vehicle servicing and maintenance. User's request should include preference for either or both the AM and PM testing periods for each day.

   An example of a company's traction testing schedule based on the above is:
   Begin: 6/16/75 End: 6/27/75
   Testing Times: 0800 to 1200 hours and 1300 to 1700 hours

7.3 SCHEDULE CHANGES AND EXCEPTIONS

The above scheduling procedure is based on anticipated usage. If the demand is greater than anticipated, the procedure will be changed accordingly. Changes and exceptions may also be made to any of the normal scheduling elements by the Test Center manager on an individual case basis. Daily changes may be made. Check bulletin board in Building 431 each day before and after testing.

7.4 TRACTION TESTING

The following instructions are applicable to the actual testing on the traction course:

a. All traffic between the traction test course and the NHTSA hangar area shall be via the route defined in Figure 2-4.

b. All tire mounting and test vehicle preparation will be accomplished in the Traction Vehicle Maintenance Area defined in Figure 2-4.

c. Test vehicle zeroing can be accomplished in the Trailer Zeroing Area defined in Figure 2-4.

d. Industry must conduct functional tests of their skid systems, i.e., run skid tests to ensure adequate water distribution over the test tire track width and proper activation of the water system and brake lock-up sequencing to prevent dry skid tests on the traction surfaces.

   These functional tests must be conducted prior to any testing on the traction surfaces. The area for the functional testing will be designated by the UTQG Test Center manager upon industry's arrival at the center.

e. The test vehicle shall enter the traction pad course at the point in proximity to the Trailer Zeroing Area, and proceed in a clockwise or counter-clockwise pattern as specified by the Test Center manager.

f. Specific lane(s) and pad(s) (Reference Figure 7-1) will be designated each day for each of the concrete and asphalt surfaces by the NHTSA Test Center manager. The traction coefficients obtained therefrom by NHTSA will be posted. All traction testing will be restricted to these designated areas.

g. The test vehicle shall proceed around the test course at a minimum average speed of 35 m.p.h., skidding once on each of the two surfaces at 40 m.p.h.

h. Test vehicle separation will be dictated by recognized safe driving procedures, considering the number of vehicles on the traction course during any period of time. However, at no time will separation between vehicles be less than 1000 feet.

i. The test vehicle shall return to the Traction Vehicle Tire Change Area for the removing and remounting of tires. Any required maintenance or service shall be performed in the Traction Vehicle Maintenance and Parking Area, thereby keeping the traction test course free of safety hazards for those vehicles actively engaged in testing.

j. When additional water is required, the vehicle shall proceed to Area 1 (Reference Figure 2-4) via the route defined in Figure 2-4, and then return to the traction pad area over the same specified route.

k. When available, a portable, hand-held, two-way radio transceiver will be issued to the operator of each skid system on a daily basis. The transceivers shall be used to coordinate activities between skid systems operating on the traction course and the NHTSA traction test manager. All operating personnel will be briefed on the communications system and strict communications discipline will be practiced at all times.

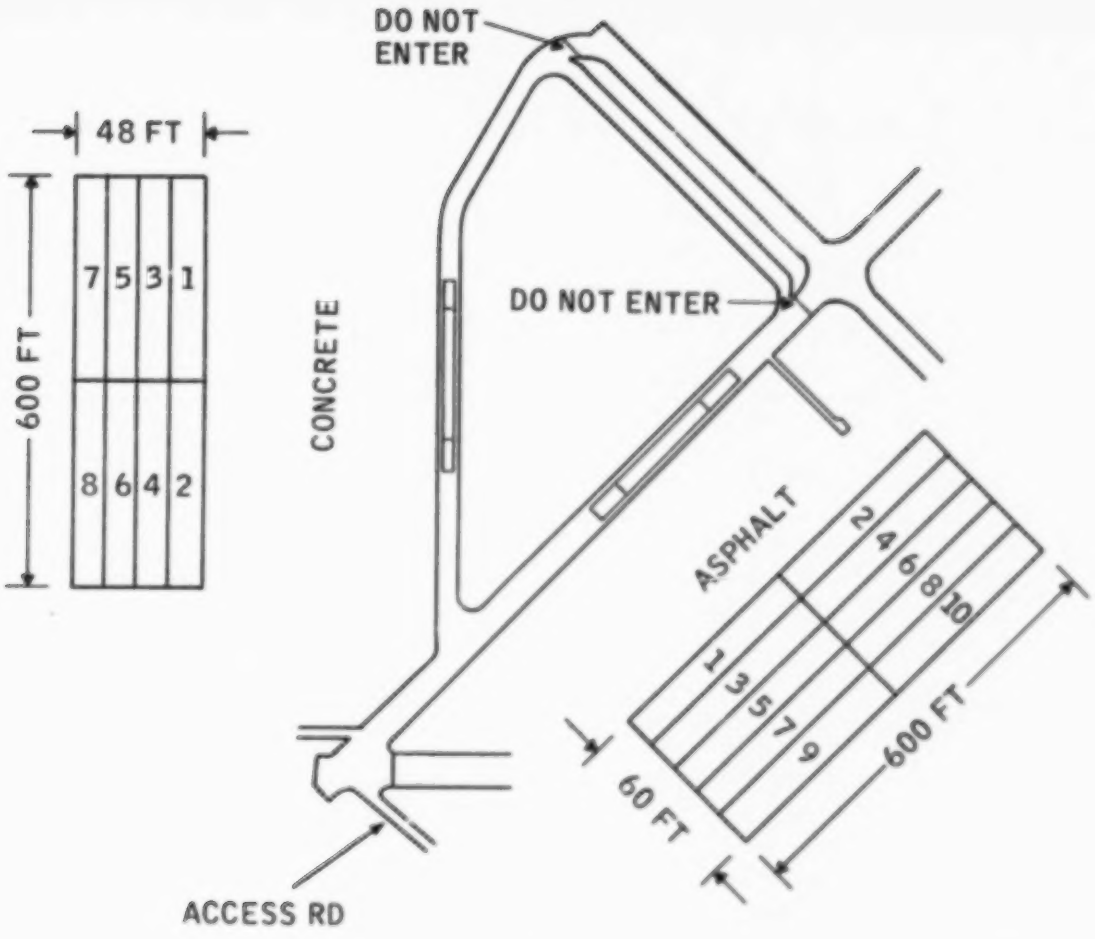


Figure 7–1. Definition of Traction Test Areas